REMARKS

The Applicant has now had an opportunity to carefully consider the comments set forth in the Office Action mailed May 6, 2005.

Amendment, reexamination and reconsideration of the application in view of the following remarks are respectfully requested.

The Office Action

In the Office Action of May 6, 2005:

the claim rejections presented in the previous Office Action are repeated and made final; and

a Response to Arguments presented in Applicant's Amendment E (mailed January 31, 2005 and referred to by the Office Action as being filed February 3, 2005) is provided.

Telephone Interview Summary and Partial Reply to Response to Arguments

A telephone interview related to the present application was held on June 14, 2005. Participating in the telephone interview were the Examiner, Ms. Kumiko C. Koyama, a Primary Examiner, Ms. Diane I. Lee and two representatives of the Applicant, Mr. Thomas Tillander and Mr. Joseph D. Dreher. It was noted that while Primary Examiner Lee had signed previous Office Actions and participated in the previous telephone interview of June 7, 2004, Primary Examiner Carl D. Frech signed the present Office Action.

Mr. Tillander addressed several portions of the Response to Argument section of the present Office Action. Portions of the recitation of **claim 2** were discussed. Additionally, aspects of **claims 1, 10, 7** and **8** and the Okamoto and Palmer references were addressed. For example, Mr. Tillander directed the attention of the Examiners to about the middle of page 11 of the present Office Action, wherein the Office Action asserts that the Examiner believes that the symbols and characters such as ". . .", ";", ",", and ":" are at least text location description and a specific point coordinate within the document and that since the document is scanned by a scanner, all the symbols on a document are machine readable symbols. Mr. Tillander submitted that the listed punctuation marks, which Okamoto refers to as segmentation symbols, are not fairly read as a text location description and a specific point coordinate within the document. Mr. Tillander

directed the attention of the Examiners to portions of the specification of the present application including page 6, line 19 – page 7, line 1, wherein the designation of sheets, pages or portions thereof, which contain chapter headings is described. The specification explains that information regarding each designated sheet, page or portion of the document is recorded. For example, where pages or sheets are designated as containing the beginning of chapters or subsections, page location information is recorded. Mr. Tillander indicated that the phrases -- text location description -- and -- specific point coordinate within the document -- were intended to refer to the sort of designation described at this portion of the specification and others. Mr. Tillander further explained that such designations might be done through the use of a mouse and pointer and submitted that the segmentation symbols of Okamoto do not fairly read on text location descriptions or specific point coordinates within a document.

Additionally, Mr. Tillander reminded the Examiners that **claim 2** originally recited -- a text location -- and -- a specific point within the document -- and that the inclusion of the word "description" as a modification to the recitation of -- text location -- and the inclusion of the word "coordinate" as a modification to the phrase -- specific point with the document -- were suggested by the Examiners during the previous telephone interview (albeit in reference to another claim) to clear up alleged ambiguities perceived by the Examiners. Mr. Tillander indicated that if the Examiners still believed that the segmentation codes of Okamoto read on a -- text location description -- or -- text location -- or a -- specific point coordinate within a document --, that there must be some phrase or phrases covering the intended subject matter, upon which the segmentation codes of Okamoto do not read, and requested that the Examiners suggest such language.

With regard to the phrase -- predetermined machine readable --, Mr. Tillander indicated that **claim 2** (and others) originally recited "a symbol" and that this was meant to refer to symbols such as a bar code and a data glyph. Additionally, Mr. Tillander reminded the Examiners that the Examiners suggested the phrase -- predetermined machine readable -- as a means for clearing up alleged ambiguity perceived by the Examiners between the intended meaning and text and characters which could be recognized and, therefore, read by a machine. Mr. Tillander pointed out that the intended meaning of the phrase -- machine readable -- was to specify those symbols that are not intended to be read by a human, such as bar codes and

data glyphs.

The Examiners indicated that **claim 2** recites a text string and that the segmentation codes of Okamoto were at least readable upon that phrase. Mr. Tillander responded that other rejected claims (i.e., **22, 23, 26, 27, 29, 30**), similar to **claim 2**, did not recite a text string. Additionally, Mr. Tillander submitted that a difference between the systems and methods disclosed in the present application and any system that might reasonably be construed to be suggested by the combination of Okamoto and Palmer is that <u>systems and methods of the present application provide for a user or system operator to determine or select a delimiter definition on a document-by-document basis, whereas the segmentation codes of Okamoto</u> (column 5, lines 20-25) <u>and the block selection techniques or rule-based knowledge system of Palmer</u> (column 2, lines 45-50) <u>appear to be hard coded or set at system design time</u>, and Okamoto and Palmer do not disclose or suggest that the segmentation codes or block selection rules be determined or designated by a system operator.

In this regard, the Examiners made reference to the selectability of detail levels described by Palmer, for example at column 6, lines 55-63. Mr. Tillander submitted that while Palmer discloses allowing an operator to determine whether an index includes title regions only (level 1), first line of text regions (level 2), text captions related to graphics (level 3) and full text (level 4), Palmer does not disclose or suggest adjusting the definition of what is, for example, a title, a text region or a caption. Mr. Tillander explained that the delimiter definitions recited in the claims of the present application were a means for identifying, for example, a chapter or subsection title or a caption. For instance, Mr. Tillander offered a delimiter definition might include font = new times roman, font size = 14 point. Under such definition, in a document where the bulk of the text is at a font size of, for example, 12 point, only text having the characteristics included in the delimiter definition (e.g., 14 point) would be included in a generated index or table of contents or be used to divide the document into sections.

In this regard, Mr. Tillander asked if amending **claim 2** to recite wherein determining a subsection delimiter comprises a <u>user</u> indicating at least one of . . . would render **claim 2** allowable.

While the Examiner's appeared to find the above described discussion and suggestions persuasive and allowable, they were not prepared to make any

12

commitments and suggested instead that the above-summarized discussion be provided in a response to the pending Office Action. The foregoing detailed summary and elaboration is provided for the foregoing reason.

Request for Withdrawal of the Finality of the Rejection

It is respectfully submitted that before final rejection is in order, a clear issue should be developed between the Examiner and the Applicant (MPEP 706.07). It is respectfully submitted that the issues raised during the telephone interview and summarized above, and/or the issues raised below in the continued Reply to the Response to Arguments, indicate that a clear issue had not been developed between the Examiner and the Applicant before the Final Rejection was issued. Therefore, withdrawal of the finality of the present rejections is respectfully requested.

Continued Reply to Response to Arguments

Regarding **claim 7**, the Office Action asserts that Okamoto teaches a method for searching a document and Palmer teaches that OCR method is utilized. However, **claim 7** recites selecting an exemplary subsection title, performing one of document recognition and optical character recognition on the selected exemplary subsection title, and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition. It is respectfully submitted that Palmer does not disclose or suggest that optical character recognition is used as part of a process for defining or determining a subsection delimiter definition. It is respectfully submitted that Palmer identifies document elements, such as titles according to rules (column 2, lines 45-54) and does not disclose or suggest that those rules can or should be modified by a system operator. Furthermore, it is respectfully submitted that Okamoto and Palmer do not disclose or suggest selecting an exemplary subsection title, performing document or character recognition on the selected subsection title and using a recognized property of the exemplary subsection title as a delimiter or property to search for to find other subsection titles as recited in **claim 7**.

Regarding **claim 8**, the Office Action asserts that Okamoto teaches selecting a demarcation point. However, the Applicant respectfully disagrees. Okamoto discloses searching for occurrences of segmentation symbols. However, it us

respectfully submitted that Okamato does not disclose or suggest a user selecting particular segmentation symbols. Furthermore, Okamoto does not disclose or suggest selecting a demarcation point. It is respectfully submitted that Okamoto only discusses segmentation symbols (those characters and combinations of characters listed in column 5, line 22). For a description of selecting a demarcation point as disclosed in the present application and recited in **claim 8**, please see, for example, page 8, lines 3-15 of the present application.

Additionally, the Office Action asserts that Palmer teaches displaying a document. However, it is respectfully submitted that Palmer does not disclose or suggest displaying a plurality of pages. Furthermore, Palmer does not disclose or suggest displaying a plurality of pages to allow an operator to select at least one demarcation point on at least one of the plurality of pages and use the at least one demarcation point as the defined subsection delimiter. Similar replies are submitted with regard to **claims 12** and **13**.

Regarding **claims 10, 18** and **28**, the Office Action asserts that "Okamoto teaches the delimiter designation system by determining the delimiter." However, it is respectfully submitted that Okamoto does not teach determining or designating a delimiter. It is respectfully submitted that the segmentation symbols (column 5, line 22) of Okamoto appear to be hard coded and Okamoto and Palmer do not disclose or suggest a user or an operator selecting or generating a delimiter definition or even generating or determining one or more segmentation symbols.

Regarding **claims 3** and **14**, the Office Action asserts that there is a motivation in the art to combine Okamoto, Palmer and Knowles. However, it is respectfully submitted that the Office Action does not suggest a fair or reasonable motivation. Okamoto discloses searching for segmentation symbols which are easily found by a computer search. Palmer discloses using "block selection techniques" to derive structural information concerning the layout of objects within a document. Okamoto and Palmer do not disclose or suggest any need or desire to enhance the searchability of a document or improve search speed by adding a bar code or data glyph or other predetermined machine readable symbol to a printed version of a document to represent a demarcation point to be used as a subsection delimiter. It is respectfully submitted that both Okamoto and Palmer disclose systems that are purported to be complete and more than adequate to the tasks they allegedly perform. It is respectfully submitted the only motivation to combine

the bar codes of Knowles with Okamoto and Palmer is only found in the present application and the rejection of **claims 3** and **14** is based on impermissible hindsight.

The Claims are not Obvious

Claims 1, 2, 4, 5, 7-13, 18, 20 and **22-30** were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer.

However, **claims 1** and **9** have been canceled.

Claim 2 has been placed in independent form and has been amended to recite wherein determining a subsection delimiter comprises a user indicating at least one of a font size, a font style, a text string, a test location description, a predetermined machine readable symbol and a specific point coordinate within the document or wherein determining a subsection delimiter comprises using a predetermined machine readable symbol representing a demarcation point on a printed version of the document as the subsection delimiter.

Arguments similar to those submitted during the telephone interview and summarized above are submitted in support of **claim 2**. It is respectfully submitted that Okamoto and Palmer do not disclose or suggest a user indicating characteristics as a method or means for determining a subsection delimiter. Furthermore, it is respectfully submitted that Okamoto and Palmer do not disclose or suggest determining a subsection delimiter comprises using a predetermined machine readable symbol or using a predetermined machine readable symbol representing a demarcation point on a printed version of the document as a subsection delimiter.

In this regard, it is to be noted that the specification has been amended to indicate that predefined machine readable symbols include such symbols as bar codes or data glyphs.

As was submitted during the telephone interview and as summarized above, it is respectfully submitted that the phrase -- predetermined machine readable symbol -- refers to symbols that are not readable by a human, or at least not intended to be read by a human. Furthermore, even though Knowles discloses bar codes, it is respectfully submitted that there is no motivation, other than that provided by the present application, to combine the bar codes of Knowles with any

combination of the disclosures of Okamoto and Palmer to arrive at the method recited in **claim 2**.

For at least the foregoing reasons, **claim 2**, as well as **claims 4-6** and **21**, which depend therefrom, are not anticipated and are not obvious in light of Okamoto, Palmer and Knowles taken alone or in any combination.

Claim 7 has been placed in independent form and recites wherein determining a subsection delimiter definition comprises selecting an exemplary subsection title, performing one of document recognition and optical character recognition on the selected exemplary subsection title and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition.

Arguments similar to those submitted in the continued Reply to Response to Arguments above are submitted in support of **claim 7**. Palmer discloses optical character recognition. However, it is respectfully submitted that Okamoto and Palmer do not disclose or suggest selecting an exemplary subsection title, performing document recognition or optical character recognition on the selected exemplary subsection title and using at least one recognized property of the exemplary subsection title as a subsection delimiter definition. In other words, Okamoto and Palmer do not disclose or suggest selecting an exemplary or illustrative subsection title, using optical character recognition to determine characteristics of that selected illustrative title and then looking for other portions of the document that share those recognized characteristics. It is respectfully submitted that the segmentation codes of Okamoto and the rules of Palmer appear to be hard coded, and Okamoto and Palmer do not disclose or suggest customizing a description or definition of a title or other portion of interest on a document-by-document basis or doing so in the manner recited in **claim 7**.

For at least the foregoing reasons, **claim 7**, as well as **claim 8**, which depends therefrom, is not anticipated and is not obvious in light of Okamoto and Palmer taken alone or in any combination.

Additionally, **claim 8** recites displaying a plurality of document pages on user interface, selecting at least one demarcation point on at least one of the plurality of pages and using the at least one demarcation point as the defined subsection delimiter.

16

It is respectfully submitted that Okamoto and Palmer do not disclose or suggest displaying a plurality of document pages on a user interface. Furthermore, Okamoto and Palmer do not disclose or suggest displaying a plurality of document pages on a user interface for the purpose of allowing a selection of at least one demarcation point or using an at least one demarcation point selection as a defined subsection delimiter.

For at least the foregoing additional reasons, **claim 8** is not anticipated and is not obvious in light of Okamoto and Palmer taken alone or in any combination.

Claim 9 has been canceled.

Claim 10 has been placed in independent form and recites a user interface and a delimiter designator module operative to communicate with the document processor operator through the user interface in order to generate at least one delimiter designation for the delimiter definition.

Arguments similar to those submitted during the telephone interview, summarized above, and submitted above in support of **claim 2** are submitted in support of **claim 10**. It is respectfully submitted that the segmentation codes of Okamoto and the rules of Palmer appear to be hard coded. The index (detail) level selections of Palmer (column 6, lines 55-65) are not fairly read as delimiter designations. The subject matter recited in **claim 10** allows a system operator to indicate to the system how to recognize portions of the document of interest, such as, titles and subsection titles on a customized or document-by-document basis. It is respectfully submitted that the index level selection of Palmer allows and operator to indicate, for example, that only titles be included in an index. However, the index level selection of Palmer does not allow an operator to indicate which portion of a document constitutes a title or other portion.

For at least the foregoing reasons, **claim 10**, as well as **claims 11-17**, which depend therefrom, is not anticipated and is not obvious in light of Okamoto and Palmer taken alone or in any combination.

Additionally, arguments similar to those submitted in support of **claim 8** are submitted in support of **claims 12** and **13**.

Claim 18 has been amended to recite defining a subsection delimiter, wherein defining the subsection delimiter includes at least one of a document processor building a subsection delimiter definition from a list of predetermined subsection delimiter components, a document processor operator entering the

subsection delimiter though keyboard keystrokes, entering a subsection delimiter by selecting symbols on a display portion of the electronic version of the document and designating at least one demarcation point on at least one displayed portion of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions. Arguments similar to those submitted in support of **claim 2** and submitted in support of **claim 10** are submitted in support of **claim 18**. It is respectfully submitted that Okamoto and Palmer do not disclose or suggest a document processor operator building a subsection delimiter definition. Furthermore, it is respectfully submitted that Okamoto and Palmer do not disclose or suggest a document processor operator building a subsection delimiter by the means or methods recited in **claim 18**.

For at least the foregoing reasons, **claim 18** is not anticipated and is not obvious in light Okamoto and Palmer taken alone or in any combination.

Claim 20 recites defining a subsection delimiter, wherein defining the subsection delimiter comprises marking a paper version of the document with at least one predetermined machine readable demarcation symbol prior to scanning the document.

Arguments similar to those submitted during the telephone interview, summarized above, and submitted in support of **claim 2** and **claim 11** are submitted in support of **claim 20**. The phrase -- predetermined machine readable symbol -- was added to **claim 20** in response to suggestions of the Examiners as a means for removing the same alleged ambiguity the present Office Action asserts is associated with the phrase. It is respectfully submitted that the phrase -- predetermined machine readable symbol -- is meant to refer to symbols which humans cannot or are not intended to read but that machines can and do read. While Knowles discloses bar codes, it is respectfully submitted that the only motivation to combine bar codes with the subject matter of Okamoto and Palmer is found in the present application.

For at least the foregoing reasons, **claim 20** is not anticipated and is not obvious in light of Okamoto, Palmer and Knowles taken alone or in any combination.

Claim 22 has been placed in independent form and recites subject matter similar to that recited in **claim 2** with the exception that **claim 22** does not recite a text string. Arguments similar to those submitted in support of **claim 2** are submitted in support of **claim 22**. The segmentation symbols of Okamoto are not

fairly read as text location descriptions or specific point coordinates within a document.

For at least the foregoing reasons, **claim 22**, as well as **claim 24**, which depends therefrom, is not anticipated and is not obvious in light of Okamoto, Palmer and Knowles taken alone or in any combination.

Claim 23 has been placed in independent form and recites subject matter similar to that recited in **claim 22** with the exception that **claim 23** does not recite a test location description. Arguments similar to those submitted in support of **claim 22** are submitted in support of **claim 23**. The segmentation codes of Okamoto are not fairly interpreted as a specific point coordinate within a document.

For at least the foregoing reasons, **claim 23**, as well as **claim 25**, which depends therefrom, is not anticipated and is not obvious in light of Okamoto, Palmer and Knowles taken alone or in any combination.

Claims 26 and **27** depend from **claim 10** and are not anticipated and are not obvious for at least that reason. Additionally, arguments similar to those submitted in support of **claims 22** and **23** are submitted in support of **claims 26** and **27**, respectively.

Claim 28 has been amended to recite defining a subsection delimiter, wherein defining the subsection delimiter comprises at least one of a user building a subsection delimiter from a list of predetermine potential subsection delimiter components, performing statistical analysis on recognized characters to select characteristics that are most likely to be associated with subsection delimiters, a user entering a subsection delimiter by selecting symbols on a display portion of the electronic version of the document, and designating at least one demarcation point on at least one display portion of the electronic document to create a list of demarcation points to be used as a set of delimiter definitions. Arguments similar to those submitted in support of **claim 18** are submitted in support of **claim 28**. It is respectfully submitted that Okamoto and Palmer do not disclose or suggest a user building a subsection delimiter.

For at least the foregoing reasons, **claim 28** is not anticipated and is not obvious in light of Okamoto and Palmer taken alone or in any combination.

Claims 29 and **30** have been canceled.

Claims 3 and **14** were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer and further in view of Knowles.

Claims **3** and **14** have been canceled. Subject matter from **claim 3** has been included in **claim 2**. It is respectfully submitted that the combination of Okamoto, Palmer and Knowles is based on impermissible hindsight.

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer and further in view of Kuga. However, **claim 6** has been amended to depend from **claim 2** and is not anticipated and is not obvious for at least that reason.

Claims 15 and **16** were rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer and further in view of Schmidt. **Claim 17** was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer and Schmidt and further in view of Herregods. **Claim 15** has been amended to depend from **claim 10**. **Claims 16** and **17** depend from **claim 15**. Therefore, **claims 15, 16** and **17** depend from **claim 10** and are not anticipated and are not obvious in view of Okamoto, Palmer, Schmidt and Herregods, taken alone or in any combination, for at least that reason.

Claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over Okamoto in view of Palmer and further in view of Alam. **Claim 21** has been amended to depend from **claim 2** and is not anticipated and is not obvious in light of Okamoto, Palmer and Alam, taken alone or in any combination, for at least that reason.

Telephone Interview

In the interests of advancing this application to issue the Applicant respectfully requests that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.

CONCLUSION

Claims 2, **4-8**, **10-13**, **15-18** and **claims 20-28** remain in the application. **Claims 1**, **3**, **9**, **14**, **29** and **30** have been canceled. **Claims 2, 4, 6-8, 10, 15, 18, 21-23** and **28** have been amended. **Claim 2, 7, 10, 18, 20, 22, 23** and **28** are independent. For at least the reasons cited above, the application is now in condition for allowance. Accordingly, an early indication thereof is requested.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

June 24, 2005
Date

Patrick M. Roche
Patrick R. Roche, Reg. No. 29,580
Thomas Tillander, Reg. No. 47,334
1100 Superior Avenue, 7th Floor
Cleveland, Ohio 44114-2579
(216) 861-5582

N:\XERZ\200421\IEW0002724V001.doc